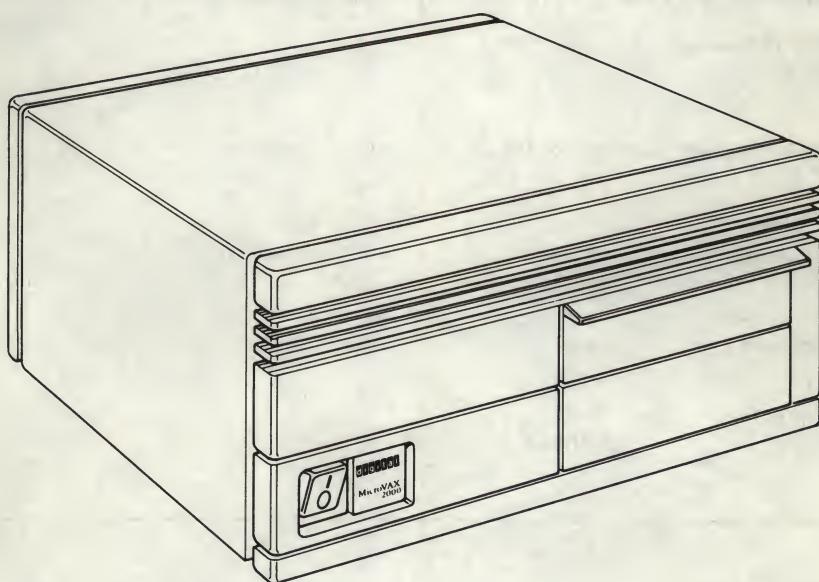


**MicroVAX 2000
Owner's Manual Addendum
DHT32 Asynchronous
Serial Line Option**

Order Number EK-ASOPT-OM-001



MA-0195-878

**digital equipment corporation
maynard, massachusetts**

September 1987

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation.

Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software, if any, described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license. No responsibility is assumed for the use or reliability of software or equipment that is not supplied by Digital Equipment Corporation or its affiliated companies.

Copyright ©1987 by Digital Equipment Corporation.

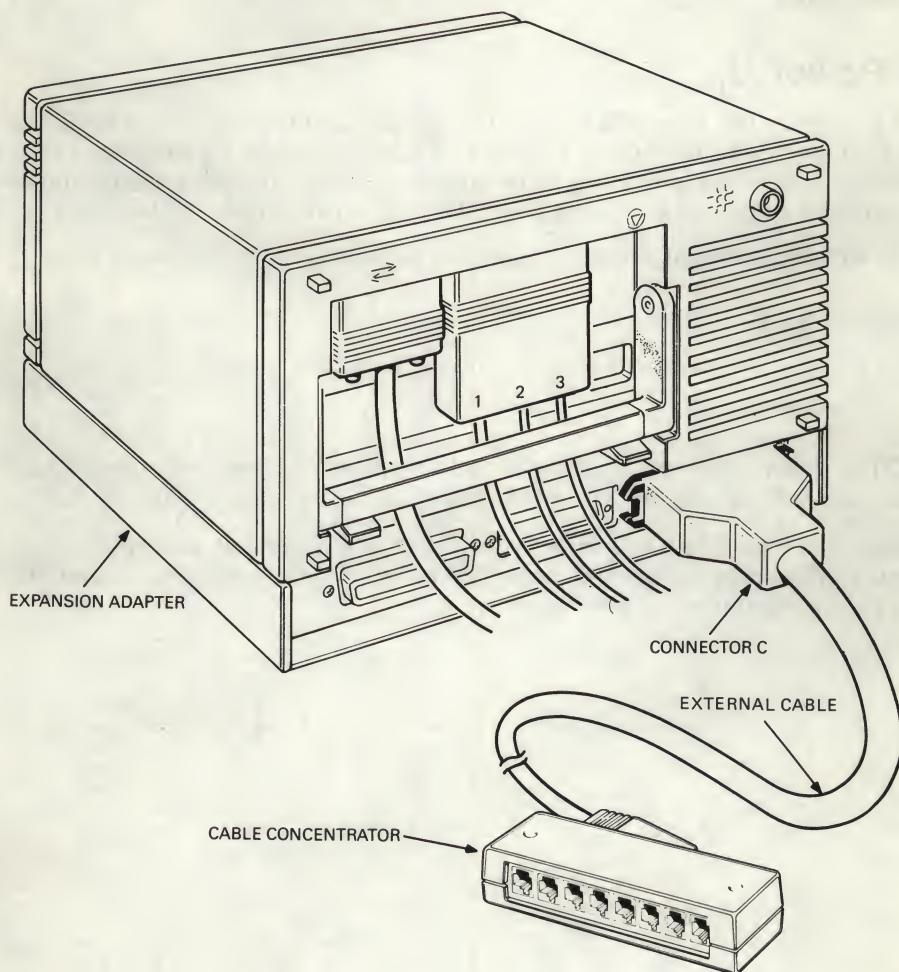
All Rights Reserved.
Printed in U.S.A.

The following are trademarks of Digital Equipment Corporation:

DEC	EduSystem	VAX
DEC/CMS	IAS	VAXcluster
DEC/MMS	MASSBUS	VAXstation 2000
DECnet	MicroVAX 2000	VMS
DECsystem-10	PDP	VT
DECSYSTEM-20	PDT	
DECUS	RSTS	
DECwriter	RSX	
DIBOL	UNIBUS	

1 Introduction

The serial-line option for the MicroVAX 2000 allows up to eight additional terminals or other peripherals to connect to the system, thus allowing up to eight additional users access to the MicroVAX 2000. The option comprises one controller module, one driver/receiver module, internal cabling, and a connector in opening "C" on the rear of the expansion adapter. Connection of one external cable and one cable concentrator on the MicroVAX 2000 enables the connection of additional terminals or other peripherals.



MR0986-1004
MA-1474-87

You can order a new system with this option already installed. If you want this option installed in a system already on your site, a qualified service representative must perform the installation of this option. The user can then connect the external cable, cable concentrator, and additional terminals.

After installation of the DHT32 option and the cable concentrator, your MicroVAX 2000 can accomodate up to a total of twelve terminals. Up to four of these connect to the rear of the system unit, as explained in the *MicroVAX 2000 Hardware Installation Guide*. The rest connect to the cable concentrator.

2 Power-Up

To power up the MicroVAX 2000, first power up the console terminal (the one connected to connector 1 on the DEC423 converter on the back of the system unit). Then power up all peripheral devices, including the terminals connected to the cable concentrator. Finally, power up the system unit.

The console terminal should display the following:

KA410-A V2.1

F...E...D...C...B...A...9...8...7...6...5...4...3_...2_...1...

? C 0080 0000.4001

NOTE: The question mark and associated letters and numbers above are a normal power-up indication in the MicroVAX 2000, and do not denote a failure.

When you type TEST 50 and press RETURN at the console prompt (>>>), your console terminal should display text similar to the following, depending on the configuration of your system.

>>> TEST 50

KA410-A V2.1
ID 08-00-2B-02-CF-A4

CLK	0000.0001
NVR	0000.0001
? DZ	0000.4001
	00004001 00000001 00000001 00000001 00000000 00000000
MEM	0004.0001
	00400000
MM	0000.0001
FP	0000.0001
IT	0000.0001
HDC	1710.0001
	000146B8 00000000 00000320
TPC	0000.4001
	FFFFFFFFFF03 FFFFFFFFFFF05 FFFFFFFFFFF05 FFFFFFFFFFF05 FFFFFFFFFFF05 FFFFFFFFFFF05
SYS	0000.0001
SLU	00FF.0001
NI	0000.0001

>>>

NOTE: The question mark associated with the DZ mnemonic is a normal power-up indication in the MicroVAX 2000, and does not represent a failure.

If you see question marks displayed beside the mnemonic SLU, the DHT32 option is failing the test. Use the rest of this update with Chapter 2 of the *MicroVAX 2000 Owner's Manual* to diagnose the problem.

3 Troubleshooting Problems

If the system exhibits problems after installation of the DHT32 option, or if failures appear during operation, run the tests described in this section. Check the connections between the system unit, cable, and cable concentrator, using the *DHT32 Option Addendum for the MicroVAX 2000 Hardware Installation Guide*.

If your system continues to fail, call a service representative.

3.1 Self-Test

When you type TEST 4 and press RETURN at the console prompt (>>>), your console terminal should display the following:

```
>>> TEST 4
```

```
4...
```

```
>>>
```

A failing DHT32 option gives the following display:

```
>>> TEST 4
```

```
4?..
```

```
84 FAIL
```

```
>>>
```

If the system fails this test, there is a problem in the internal circuitry of the DHT32 option. You must call a service representative to have repairs made.

3.2 Exerciser

If you see no errors at power up, but there are problems in your system, run the system exerciser.

When you type TEST 0 and press RETURN at the console prompt (>>>), the console terminal should display the following:

KA410-A V2.1			01	CU	
?? C	0080	DZ	0000.2020	6	0 00:05:01.53
B	0010	MEM	00D7.0001	3	0 00:04:54.74
7	0090	HDC	0000.0001	9	0 00:04:58.93
			0700.0001		
6	00A0	TPC	8000.0001	3	0 00:04:55.35
4	00F0	SLU	00FF.0001	2	0 00:04:54.71
			0001.0001		
			0001.0001		
			0001.0001		
			0001.0001		

>>>

NOTE: The question marks associated with the DZ mnemonic is a normal indication in the MicroVAX 2000, and does not represent a failure.

If you see any question marks on the line starting "4", the serial line option is failing the test and you must call a service representative.

If you experience a problem with one of the terminals connected to the cable concentrator, disconnect it and run the self-test on the system. If the system passes the test, you may have a bad terminal, cable concentrator, or external cable. Connect the terminal to another system to see if the terminal is failing. Swap the cable concentrator and cable, if possible, to see if they fail on another MicroVAX 2000.

If you are unable to resolve the problem, call your service representative. Be prepared to give your representative the results of any tests you may have run.

— 1 —

— 2 —

— 3 —

— 4 —

— 5 —

— 6 —

— 7 —

— 8 —

— 9 —

— 10 —

— 11 —

— 12 —

— 13 —

— 14 —

— 15 —

— 16 —

— 17 —

— 18 —

— 19 —

— 20 —

— 21 —

— 22 —

— 23 —

— 24 —

— 25 —

— 26 —

— 27 —

— 28 —

— 29 —

— 30 —

— 31 —

— 32 —

— 33 —

— 34 —

— 35 —

— 36 —

— 37 —

— 38 —

— 39 —

— 40 —

— 41 —

— 42 —

— 43 —

— 44 —

— 45 —

— 46 —

— 47 —

— 48 —

— 49 —

— 50 —

— 51 —

— 52 —

— 53 —

— 54 —

— 55 —

— 56 —

— 57 —

— 58 —

— 59 —

— 60 —

— 61 —

— 62 —

— 63 —

— 64 —

— 65 —

— 66 —

— 67 —

— 68 —

— 69 —

— 70 —

— 71 —

— 72 —

— 73 —

— 74 —

— 75 —

— 76 —

— 77 —

— 78 —

— 79 —

— 80 —

— 81 —

— 82 —

— 83 —

— 84 —

— 85 —

— 86 —

— 87 —

— 88 —

— 89 —

— 90 —

— 91 —

— 92 —

— 93 —

— 94 —

— 95 —

— 96 —

— 97 —

— 98 —

— 99 —

— 100 —